Abstract: Page 290, replace whole page with the following new abstract, which includes the herein amended new title.

ABSTRACT,

Mechanical Computer Bus

Methods are described of operating a bus using a ball interacting with pivoting switches. Mechanical computing has a history back to the 1830's (Charles Babbage), and today students take whimsical delight observing museum kinetic displays of flip-flops. Rather than as a replacement of electronics, mechanical logic devices are complementary but are showing an increasing presence in miniaturized and nanotechnology efforts (or MEMS devices). The preferred invention discrete bus uses a single bit, but of a larger numerical range capacity than conventional two state binary. For comparison; four bit binary bus systems have a range of zero through fifteen, while a decimal discrete bus conveys a single bit of comparable range of zero through nine. Using a single bit is beneficial for simplifying subsystem logic, even with more conduit structures than the more compact binary. For a mechanical processor system having 1000 digits in storage, addressed as 0 through 999, tree path addressing schemes, binary or otherwise, can only accommodate partial addressing at one time, so a multiplexed bus of ten signals that is used for three separate address digit transfers is just as efficient as a full parallel 30 signal bus would be. Furthermore, a single bit data transfer scheme can easily translate data values, or sequence a read only memory.